



ASCENDUM

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Ascendum Machinery/500 Hour CSA
Machine Id
VOLVO L150H 2197 (S/N L150HV6957)
Component
Diesel Engine
Fluid
VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0011413	ASC0008712	ASC0006406
Sample Date		Client Info		15 May 2024	27 Mar 2024	25 Jan 2024
Machine Age	hrs	Client Info		8433	8219	7473
Oil Age	hrs	Client Info		500	746	473
Filter Age	hrs	Client Info		500	0	473
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	2	3	2
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	1	<1	2
Lead	ppm	ASTM D5185m	>20	0	0	1
Copper	ppm	ASTM D5185m	>15	2	2	7
Tin	ppm	ASTM D5185m	>10	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

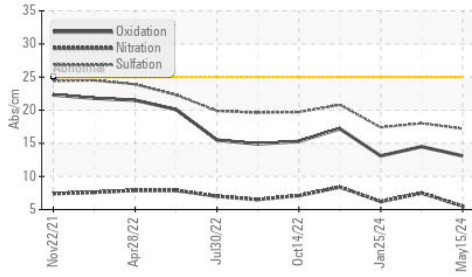
Silicon	ppm	ASTM D5185m	>20	3	2	4
Potassium	ppm	ASTM D5185m	>20	<1	0	4
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	5.5	7.5	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.2	18.0	17.4
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

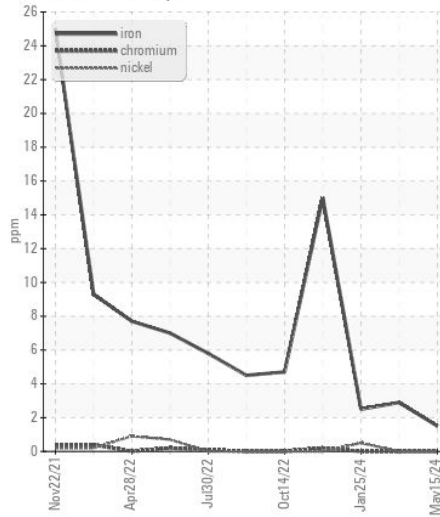
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	<1	1
Boron	ppm	ASTM D5185m		3	2	11
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		59	56	58
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		937	944	878
Calcium	ppm	ASTM D5185m		1069	1083	977
Phosphorus	ppm	ASTM D5185m		1076	1012	1015
Zinc	ppm	ASTM D5185m		1253	1194	1206
Sulfur	ppm	ASTM D5185m		3697	3408	3070
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.1	14.5	13.1
Base Number (BN)	mg KOH/g	ASTM D2896		8.8	7.9	8.5
Visc @ 100°C	cSt	ASTM D445		13.9	13.1	12.8

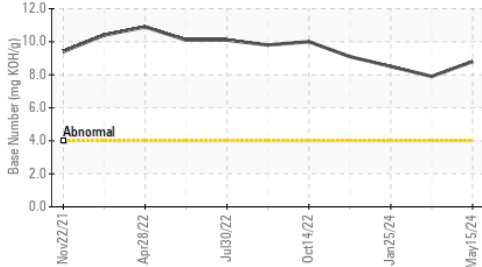
FT-IR (Direct Trend)



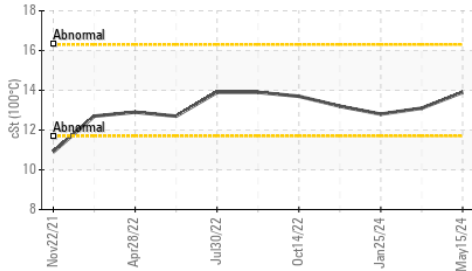
Ferrous Alloys



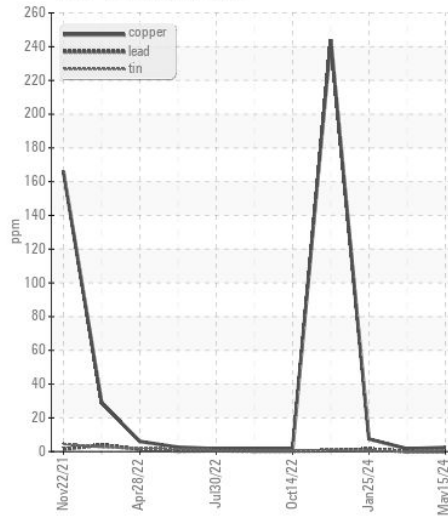
Base Number



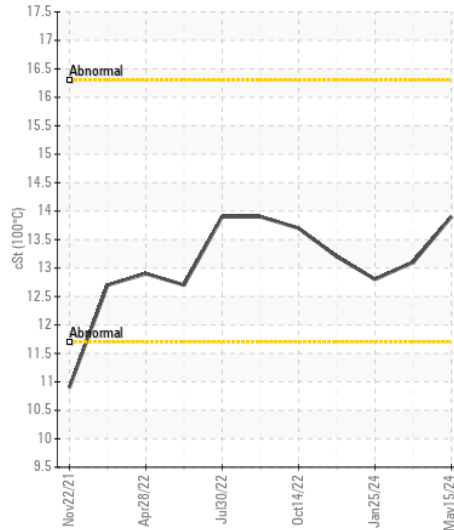
Viscosity @ 100°C



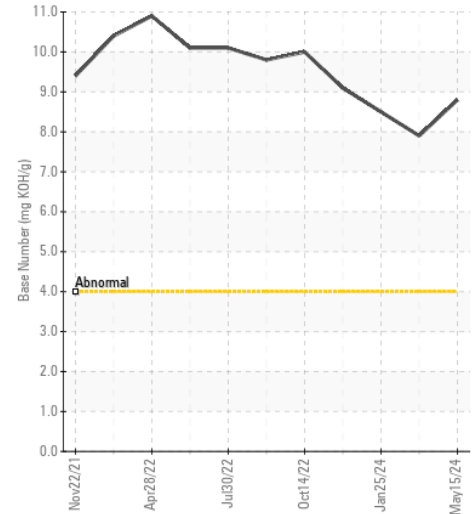
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0011413 **Received** : 21 May 2024
Lab Number : 06185830 **Tested** : 22 May 2024
Unique Number : 11042582 **Diagnosed** : 23 May 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: TBN)

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To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)